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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/718,129	11/20/2003	Norival R. Figueira	14715SSUS03U	9076

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EXAMINER	
PATEL, CHANDRAHAS B	
ART UNIT	**PAPER NUMBER**
2616	

NOTIFICATION DATE	DELIVERY MODE
01/31/2008	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

john@gorecki.us

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Office Action Summary	Application No.	Applicant(s)	
	10/718,129	FIGUEIRA ET AL.	
	Examiner	Art Unit	
	Chandrahas Patel	2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *28 November 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-23* is/are pending in the application.

4a) Of the above claim(s) *11-14 and 23* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-10, 15-22* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

Applicant's arguments filed 11/28/2007 have been fully considered and following rejection is made in view of submitted arguments and amended claims.

Examiner withdraws objection to specification in light of submitted amendment to specification.

Claim Rejections - 35 USC § 112

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 10, 15, 17 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The claimed subject matter "each of the fields including a number of bits smaller than a total number of bits of the destination MAC address" is not described in specification. Thus, one of ordinarily skilled in the art would not be able to use present invention that requires less bits in the MAC address since less bits means less information is available and without some modification described in the specification the invention would not be useful.

Claim Rejections - 35 USC § 101

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim10 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. A data structure *per se* is non-statutory. Merely putting a data structure on a computer readable medium does not make it statutory because a protocol data unit on a computer readable medium is not capable of causing any functional change in the computer, thus does not produce a useful result [See MPEP 2106.01].

Claim Rejections - 35 USC § 102

4. Claims 1, 3, 5, 6, 10 are rejected under 35 U.S.C. 102(e) as being anticipated by Schaub et al. (USPN 7,190,695).

Regarding claim 1, Schaub teaches a method of switching frames at a first switch on a communication network **[Abstract]**, comprising the steps of: receiving a frame at a first switch **[Fig. 5, 536]**; extracting frame contained destination information from the received frame **[Col. 7, lines 47-56]**; making a switching decision with the first switch based on the extracted frame contained destination information without performing a lookup in a forwarding table to determine an output port from the first switch over which the frame should be forwarded onto the communication network **[Col. 7, lines 47-62, Col. 9, lines 21-41]**; forwarding the frame within the switch to the output port over the frame should be forwarded onto the communication network **[Col. 9, lines 21-41]**; and transmitting the frame from the determined output port onto the communication network **[Fig. 5, 522]**; whereby a received frame may be transmitted from an input port to a determined output port and then onto the communication network based on the frame contained destination information without performing a table lookup operation to determine the output port **[Col. 9, lines 21-41]**.

Regarding claim 3, Schaub teaches destination information comprises a portion of a MAC address **[Col. 7, lines 49-56]**.

Regarding claim 5, Schaub teaches extracting comprises reading a field of the MAC address **[Col. 7, lines 47-56]**, the field of the MAC address being a selected number of bits of the MAC address smaller than the total number of bits of the MAC address and located at a particular location within the MAC address **[Col. 7, lines 56-60]**, and wherein ascertaining comprises using information in the field to identify the output port **[Col. 8, lines 59-67 – Col. 9, lines 1-4]**.

Regarding claim 6, Schaub teaches reading at least a second field of the MAC address **[Col. 7, lines 47-56, source address is the second field of the MAC address]**.

Regarding claim 10, Schaub teaches a protocol data unit data structure stored in a tangible computer readable medium **[Fig. 1, packets]**, the protocol data unit data structure comprising: a destination MAC address, the destination MAC address being a local MAC address having a plurality of fields **[Col. 7, lines 47-56]**, each of the fields including a number of bits smaller than a total number of bits of the destination MAC address **[Fig. 6]**, and each of the fields containing a code to be used by a switch on a network to identify an output port on the switch without performing a table lookup operation, wherein each of the fields is to be used by a different switch on a network **[Col. 7, lines 56-60, Col. 9, lines 21-41]**; and a payload portion **[Col. 3, lines 12-15, each packet has data portion]**.

5. Claims 15, 16, 19 are rejected under 35 U.S.C. 102(e) as being anticipated by Pearce et al. (USPN 6,556,574).

Regarding claim 15, Pearce teaches a method of assigning a Media Access Control (MAC) address to an interface on a network **[Col. 14, lines 44-47]**, comprising: setting a local bit in the MAC address to indicate to network elements on the network that the MAC address is locally assigned **[Col. 14, lines 44-47]**; and assigning a first value to a first field of the MAC address, the first field containing a smaller number of bits than a total number of bits of the destination MAC address **[Fig. 6A, 604, Col. 13, lines 59-64]**, the first value containing first output interface information usable by a first switch to identify a first output interface for transmission of frames containing the first value in the first field of the MAC address **[Col. 20, lines 10-18]**.

Regarding claim 16, Pearce teaches collecting the first output interface information from the first switch **[Col. 20, lines 10-18]**.

Regarding claim 19, Pearce teaches transmitting the MAC address to a network device containing the interface to which the MAC address has been assigned **[Col. 11, lines 29-34]**.

Claim Rejections - 35 USC § 103

6. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Schaub et al. (USPN 7,190,695) in view of Hughes, Jr. (USPN 7,277,399).

Regarding claim 2, Schaub teaches a method as discussed in rejection of claim 1.

However, Schaub does not teach reading a portion of a header of the frame and causing the frame to be passed directly to the output port without performing a table lookup operation.

Hughes teaches reading a portion of a header of the frame and causing the frame to be passed directly to the output port without performing a table lookup operation **[Fig. 4, 410]**.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to pass the frame directly to the output without performing a table lookup so that most frequently accessed destinations can be switched quickly **[Col. 1, lines 24-30]**.

7. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Schaub et al. (USPN 7,190,695) in view of Dobson (USPN 6,891,887).

Regarding claim 4, Schaub teaches a method as discussed in rejection of claims 3.

However, Schaub does not teach the MAC address is a local destination MAC address.

Dobson teaches the MAC address is a local destination MAC address **[Col. 8, lines 35-37]**.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have a local destination MAC address so that all the frames that do not correspond to their MAC address can be discarded **[Col. 8, lines 38-40]**.

8. Claims 7, 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schaub et al. (USPN 7,190,695) in view of Ohgane (USPN 6,707,814).

Regarding claim 7, Schaub teaches a method as discussed in rejection of claim 3.

However, Schaub does not teach destination information comprises a local MAC address having at least two fields, the first field containing information for the first switch and the second field containing information for a second switch connected to an interface of the first switch.

Ohgane teaches destination information comprises a local MAC address having at least two fields, the first field containing information for the first switch and the second field

containing information for a second switch connected to an interface of the first switch **[Fig. 2A, 2B, multiple cells each having MAC address for other destinations are included in 20a, Col. 7, lines 15-18]**.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have multiple fields containing multiple MAC addresses for multiple switches for broadcast service **[Col. 6, lines 64-67 – Col. 7, line 1]**.

Regarding claim 8, Schaub teaches extracting comprises reading the first and second fields **[Col. 7, lines 47-56]**.

9. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Schaub et al. (USPN 7,190,695) in view of Ohgane (USPN 6,707,814) as applied to claim 8 above, and further in view of Tursich (USPN 6,671,828).

Regarding claim 9, the references teach a method as discussed in rejection of claim 8.

However, the references do not teach comparing information in the second field with expected information, and selecting as the output port an output port on the first switch that is connected to second switch if the information in the second field does not match the expected information.

Tursich teaches comparing information in the second field with expected information, and selecting as the output port an output port on the first switch that is connected to second switch if the information in the second field does not match the expected information **[Fig. 3]**.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to select the output port if the information does not match the expected information so that packet could be transferred and the source address can also be learned **[Col. 4, lines 27-30]**.

10. Claims 17, 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pearce et al. (USPN 6,556,574) in view of Ohgane (USPN 6,707,814).

Regarding claim 17, Pearce teaches a second field containing a smaller number of bits than the total number of bits of the destination MAC address **[Fig. 6A, 604, Col. 13, lines 59-64]**.

However, Pearce does not teach assigning a second value to a second field of the MAC address, the second value containing second output interface information usable by a second switch to identify a second output interface for transmission of frames containing said MAC address.

Ohgane teaches assigning a second value to a second field of the MAC address, the second value containing second output interface information usable by a second switch to identify a second output interface for transmission of frames containing said MAC address **[Fig. 2A, 2B, multiple cells each having MAC address for other destinations are included in 20a, Col. 7, lines 15-18]**.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have multiple fields containing multiple MAC addresses for multiple switches for broadcast service **[Col. 6, lines 64-67 – Col. 7, line 1]**.

Regarding claim 18, Pearce teaches collecting the output interface information from the switch **[Col. 20, lines 10-18]**.

11. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Pearce et al. (USPN 6,556,574) in view of Ocepek et al. (USPN 7,124,197).

Regarding claim 20, Pearce teaches a method as discussed in rejection of claim 19.

However, Pearce does not teach setting the network device in promiscuous mode to cause the network device to receive MAC address.

Ocepek teaches setting the network device in promiscuous mode to cause the network device to receive MAC address **[Col. 9, lines 31-35]**.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to set the device in promiscuous mode to receive MAC address since in this mode all data will be received regardless of device's MAC address **[Col. 9, lines 31-35]**.

12. Claims 21, 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pearce et al. (USPN 6,556,574) in view of Fijolek et al. (USPN 7,107,326).

Regarding claim 21, Pearce teaches a method as discussed in rejection of claim 15.

However, Pearce does not teach assigning a second field of the MAC address according to a prefix of the first switch.

Fijolek teaches assigning a second field of the MAC address according to a prefix of the first switch **[Col. 15, lines 14-15]**.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to assign a prefix to MAC address to restrict access for certain network devices **[Col. 15, lines 12-14]**.

Regarding claim 22, Fijolek teaches the prefix is a portion of all local MAC addresses that are reachable through the first switch **[Col. 15, lines 20-24]**.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have the prefix that indicates all local MAC addresses that are reachable to enable filtering by a system administrator **[Col. 15, lines 20-24]**.

Conclusion

13. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

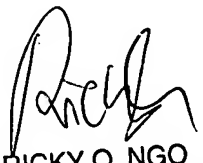
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chandrahas Patel whose telephone number is 571-270-1211. The examiner can normally be reached on Monday through Thursday 7:30 to 17:00 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky Ngo can be reached on 571-272-3139. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

CBP



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